



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: Box ISSUE FEE
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NOTICE OF ALLOWANCE AND ISSUE FEE DUE

B5M1/0318

PAUL W MARTIN
INTELLECTUAL PROPERTY SECTION LAW DEPT
AT&T GLOBAL INFORMATION SOLUTIONS CO
101 W SCHANTZ AVENUE ECD 2
DAYTON OH 45479-0001

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/550,150	10/30/95	035	LEE, M 2514	03/18/97
First Named Applicant	DETWILER, PAUL O.			

TITLE OF INVENTION OPTICAL SCANNER HAVING ENHANCED ITEM SIDE COVERAGE

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2 6144	235-467.000	K79	UTILITY	NO	\$1290.00	06/18/97

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.
If the SMALL ENTITY is shown as yes, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B of this notice should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "6b" of Part B should be completed.

III. All communications regarding this application must give application number and batch number. Please direct all communication prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B—ISSUE FEE TRANSMITTAL

MAILING INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE. Blocks 2 through 6 should be completed where appropriate. All further correspondence including the issue Fee Receipt, the Patent, advance orders and notification of maintenance fees will be mailed to addresses entered in Block 1 unless you direct otherwise, by: (a) specifying a new correspondence address in Block 3 below; or (b) providing the PTO with a separate "FEE ADDRESS" for maintenance fee notifications with the payment of issue Fee or thereafter. See reverse for Certificate of Mailing, below.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending on the needs of the individual case. Any comments on the amount of time required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, D.C. 20231.

DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Issue Fee, Assistant Commissioner for Patents, Washington D.C. 20231

1. CORRESPONDENCE ADDRESS	B5M1/0318
PAUL W MARTIN INTELLECTUAL PROPERTY SECTION LAW DEPT AT&T GLOBAL INFORMATION SOLUTIONS CO 101 W SCHANTZ AVENUE ECD 2 DAYTON OH 45479-0001	

2. INVENTOR(S) ADDRESS CHANGE (Complete only if there is a change)	
INVENTOR'S NAME	
Street Address	
City, State and Zip Code	
CO-INVENTOR'S NAME	
Street Address	
City, State and Zip Code	
<input type="checkbox"/> Check if additional changes are enclosed	

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/550,150	10/30/95	035	LEE, M	2514 03/18/97
First Named Applicant		DETWILER, PAUL O.		

TITLE OF INVENTION: OPTICAL SCANNER HAVING ENHANCED ITEM SIDE COVERAGE

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2 6144	235-467.000	K79	UTILITY	NO	\$1290.00	06/18/97

3. Correspondence address change (Complete only if there is a change)

08/11/1997 SEARCHED 00000036 DAB:140225 08550150
01 FC:142 1290.00 CH

4. For printing on the patent front page, list the names of not more than 3 registered patent attorneys or agents OR, alternatively, the name of a firm having as a member a registered attorney or agent. If no name is listed, no name will be printed.

1 Paul W. Martin

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5. ASSIGNMENT DATA TO BE PRINTED ON THE PATENT (print or type)

(1) NAME OF ASSIGNEE: NCR Corporation
(2) ADDRESS: (CITY & STATE OR COUNTRY) Dayton, Ohio

A ☐ This application is NOT assigned.
☒ Assignment previously submitted to the Patent and Trademark Office.
☐ Assignment is being submitted under separate cover. Assignment should be directed to Box ASSIGNMENTS.
PLEASE NOTE: Unless an assignee is identified in Block 5, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the PTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

6a. The following fees are enclosed:	
<input type="checkbox"/> Issue Fee	<input type="checkbox"/> Advance Order - # of Copies
6b. The following fees should be charged to:	
DEPOSIT ACCOUNT NUMBER	14-0225
(ENCLOSE A COPY OF THIS FORM)	
<input checked="" type="checkbox"/> Issue Fee	<input type="checkbox"/> Advance Order - # of Copies
<input type="checkbox"/> Any Deficiencies in Enclosed Fees	

The COMMISSIONER OF PATENTS AND TRADEMARKS is requested to apply the Issue Fee to the application identified above.

(Authorized Signature) *[Signature]* (Date) 6/17/97
 NOTE: The Issue Fee will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the Patent and Trademark Office.

Certificate of Mailing

Note: If this certificate of mailing is used, it can be used to transmit the Issue Fee. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Box ISSUE FEE
Assistant Commissioner for Patents
Washington, D.C. 20231

on: June 18, 1997 (Date)
 Karen A. Church (Name of person making deposit)
Karen A. Church (Signature)
 6-18-97 (Date)



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/550,150	10/30/95	DETWILER	P 6144

EXAMINER
LEE, M

B5M1/0318

PAUL W MARTIN
INTELLECTUAL PROPERTY SECTION LAW DEPT
AT&T GLOBAL INFORMATION SOLUTIONS CO
101 W SCHANTZ AVENUE ECD 2
DAYTON OH 45479-0001

ART UNIT	PAPER NUMBER
2514	4

DATE MAILED: 03/18/97

NOTICE OF ALLOWABILITY

PART I.

- ☒ This communication is responsive to telephone interview on 17 March 97.
- ☒ All the claims being allowable. PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice Of Allowance And Issue Fee Due or other appropriate communication will be sent in due course.
- ☒ The allowed claims are 1-35.
- ☒ The drawings filed on 10/30/95 are acceptable.
- ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received. ☐ not been received. ☐ been filed in parent application Serial No. _____, filed on _____.
- ☒ Note the attached Examiner's Amendment.
- ☒ Note the attached Examiner Interview Summary Record, PTOL-413.
- ☒ Note the attached Examiner's Statement of Reasons for Allowance.
- ☒ Note the attached NOTICE OF REFERENCES CITED, PTO-892.
- ☒ Note the attached INFORMATION DISCLOSURE CITATION, PTO-1449.

PART II.

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" indicated on this form. Failure to timely comply will result in the ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
- ☐ APPLICANT MUST MAKE THE DRAWING CHANGES INDICATED BELOW IN THE MANNER SET FORTH ON THE REVERSE SIDE OF THIS PAPER.
 - ☐ Drawing informalities are indicated on the NOTICE RE PATENT DRAWINGS, PTO-948, attached hereto or to Paper No. _____. CORRECTION IS REQUIRED.
 - ☐ The proposed drawing correction filed on _____ has been approved by the examiner. CORRECTION IS REQUIRED.
 - ☐ Approved drawing corrections are described by the examiner in the attached EXAMINER'S AMENDMENT. CORRECTION IS REQUIRED.
 - ☐ Formal drawings are now REQUIRED.

Any response to this letter should include in the upper right hand corner, the following information from the NOTICE OF ALLOWANCE AND ISSUE FEE DUE: ISSUE BATCH NUMBER, DATE OF THE NOTICE OF ALLOWANCE, AND SERIAL NUMBER.

Attachments:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Examiner's Amendment | <input type="checkbox"/> Notice of Informal Application, PTO-152 |
| <input checked="" type="checkbox"/> Examiner Interview Summary Record, PTOL-413 | <input type="checkbox"/> Notice re Patent Drawings, PTO-948 |
| <input checked="" type="checkbox"/> Reasons for Allowance | <input type="checkbox"/> Listing of Bonded Draftsmen |
| <input checked="" type="checkbox"/> Notice of References Cited, PTO-892 | <input type="checkbox"/> Other |
| <input checked="" type="checkbox"/> Information Disclosure Citation, PTO-1449 | |

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Part III EXAMINER'S AMENDMENT

1. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Mr. Paul W. Martin (Reg. No. 34,870) on 17 March 1997.

2. The application has been amended as follows:

IN THE CLAIMS:

~~Re~~ claim 11, line 15: Substitute "a vertical" with -- **said vertical** --.

~~Re~~ claim 17, lines 1-3: Delete "**wherein the housing has substantially horizontal and vertical apertures and**".

3. The following is an Examiner's Statement of Reasons for Allowance: Claims 1-35 are allowable over the prior art of record. The prior art of record fails to teach or fairly suggest an optical scanner comprising a housing having a substantially vertical surface containing a first aperture and a substantially horizontal surface containing a second aperture; a single laser which produces a laser beam toward a polygon spinner having mirrored facets which

1 inherently produces a plurality of scanning beams including a first group of scanning beams in
2 a substantially horizontal direction, a second group of scanning beams in a substantially
3 downward diagonal direction, and a third group of scanning beams in a substantially vertical
4 direction; and a plurality of groups of pattern mirrors for reflecting the first group of scanning
5 beams through the first aperture to produce a first scan pattern, for reflecting the second group
6 of scanning beams through the first aperture to produce a second scan pattern, and for
7 reflecting the third group of scanning beams through the second aperture to produce a third
8 scan pattern, as set forth in the claims.

9 Any comments considered necessary by applicant must be submitted no later than the
10 payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the
11 Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons
12 for Allowance."

13
14 ***Conclusion***

15 4. The prior art made of record and not relied upon is considered pertinent to applicant's
16 disclosure:

17 Detwiler et al (US 5,459,308) discloses a dual aperture optical scanner.

18 Collins, Jr. (US 5,019,694) discloses an overhead scanning terminal.

1 Rando et al (US 4,939,355) discloses an automatic package label scanner with a
2 plurality of scan lines.

3 Lindacher (US 5,148,009) discloses a bar code scanning apparatus with a single
4 aperture.

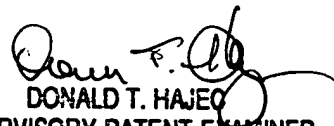
5 5. Papers related to this application may be submitted to Group 2500 by facsimile
6 transmission: Papers should be faxed to Group 2500 via the PTO fax machine located in
7 Crystal Plaza 2. The faxing of such papers must conform with the notice published in the
8 Official Gazette, 1096 OG 30 (November 15, 1989), as modified by the new rules published in
9 the Federal Register dated 22 October 1993. The CP-2 fax machine number is (703)308-7723.

10 Any inquiry concerning this communication or earlier communications from the
11 examiner should be directed to *Michael G. Lee* whose telephone number is (703)305-3503,
12 and who can be reached between the hours of 6:30AM to 3:00PM Monday thru Thursday and
13 every other Friday (second Friday of the bi-week).

14 Any inquiry of a general nature of relating to the status of this application should be
15 directed to the Group receptionist whose telephone number is (703)308-0956.

16
17 
18 MGL

19 March 17, 1997


DONALD T. HAJEC
SUPERVISORY PATENT EXAMINER
GROUP 2500